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SON-1659 (80001-1659)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the Patent Application of

Takashi HIRAKAWA et al.

Serial No. 09/414,714 ✓

Filed: October 13, 1999

Group Art Unit: 2673

Examiner: L. Lao

For: LIQUID-CRYSTAL DISPLAY APPARATUS AND THREE-PANEL LIQUID CRYSTAL DISPLAY PROJECTOR

APPEAL BRIEF

BOX AF
Commissioner of Patents
Washington, DC 20231

Sir:

This is an Appeal Brief under 37 C.F.R. 1.192 appealing the final decision of the Examiner dated November 27, 2001. Each of the topics required by 37 C.F.R. 1.192 is presented herewith and is labeled appropriately.

I. Real Party in Interest

Sony Corporation of Tokyo, Japan ("Sony") is the real party in interest of the present application. An assignment of all rights in the present application to Sony was executed by the inventor and recorded by the U.S. Patent and Trademark Office at reel 010319 frame 0411.

Adjustment date: 05/09/2002 JADD01
04/30/2002 JADD01 00000094 180013 09484228
01 FC:120 320.00 CR

II. Related Appeals and Interferences

There are no related appeals or interferences.

04/30/2002 JADD01 00000094 180013 09484228
01 FC:120 320.00 CH

05/10/2002 JADD01 00000083 180013 09417714
01 FC:120 320.00 CH

III. Status of Claims

Claims 1-10 stand finally rejected. Claim 7-10 were added by Preliminary Amendment filed October 13, 1999, and claim 7 was amended by an Amendment filed September 19, 2001. No claims are currently allowed.

Accordingly, the Appellant hereby appeals the final rejection of claims 1-10, which are presented in the Appendix.

IV. Status of Amendments

An Amendment was filed on September 19, 2001 subsequent to the rejection of July 5, 2001. No Amendment after the Final Rejection that is the subject of this Appeal was filed.

The claims in the Appendix represent the state of the claims as pending.

V. Summary of the Invention

Claim 1 recites a liquid-crystal display apparatus having a liquid-crystal display panel. A means is provided for supplying a primary color video signal, wherein a correction signal for canceling chrominance non-uniformity is superimposed on the primary color video signal. A means for supplying a common voltage is also provided.

Claim 2 recites a liquid-crystal display apparatus having a liquid-crystal display panel. A means is provided for supplying a primary color video signal, and a means is provided for supplying a common voltage, wherein a correction signal for canceling chrominance non-uniformity is superimposed on the common voltage.

Claim 3 recites a three-panel liquid-crystal display projector having a white light source, along with a color separation system for separating a white light from the white light source into color lights. A liquid-crystal display panel, supplied with a red video signal and a

common voltage, for presenting a red video image is also provided, along with a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image, and a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation. Also provided is a color synthesis system for synthesizing the color video images and a lens system. A chrominance non-uniformity correction signal is superimposed on the video signal which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

Claim 4 recites a three-panel liquid-crystal display projector having a white light source, along with a color separation system for separating a white light from the white light source into color lights. A liquid-crystal display panel, supplied with a red video signal and a common voltage, for presenting a red video image is also provided, along with a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image, and a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation. Also provided is a color synthesis system for synthesizing the color video images and a lens system. A chrominance non-uniformity correction signal is superimposed on the common voltage which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

Claim 7 recites a three-panel liquid-crystal display projector having a plurality of liquid-crystal display panels respectively receiving red, green, and blue light rays from a light source through a color separation system to respectively produce a red video image, a green video image, and a blue video image. A color synthesis system synthesizes the red, green and blue video images for projection onto a screen to produce an enlarged image on the screen. An electrical signal processing system receiving a primary color video signal from a color video reproducing apparatus, synchronization signals, and a common voltage, and outputs respective red, green and blue video signals and a common voltage. A chrominance non-uniformity

correction circuit provides a chrominance non-uniformity correction signal to the electrical signal processing system for canceling chrominance non-uniformity.

Appellants are claiming a liquid-crystal display apparatus, supplying a primary color video signal and a common voltage to the liquid-crystal display a correction signal for canceling chrominance non-uniformity that is superimposed on the common voltage or the primary video signal. The chrominance non-uniformity is thus removed from the display screen. See Specification at page 3, lines 4-14.

VI. Issues

The issues presented for consideration in this appeal are as follows:

- (1) Whether the Examiner erred in rejecting claim 1 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent 5,260,797 to Muraji et al.?
- (2) Whether the Examiner erred in rejecting claim 3 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 5,260,797 to Muraji et al. in view of U.S. Patent 5,831,709 to Song?
- (3) Whether the Examiner erred in rejecting claims 1-10 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.?

Each of these issues will be discussed in turn.

VII. Grouping of Claims

- (1) Claim 1 stands or falls alone with respect to the §102 rejection;

- (2) Claim 2 stands or falls alone with respect to the §103 rejection over U.S. Patent 5,260,797 to Muraji et al. in view of U.S. Patent 5,831,709 to Song;
- (3) Claims 3 and 5 stand or fall together with respect to the §103 rejection over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.;
- (4) Claims 4 and 6 stand or fall together with respect to the §103 rejection over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.;
- (5) Claims 7 and 10 stand or fall together with respect to the §103 rejection over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.;
- (6) Claim 8 stands or falls alone with respect to the §103 rejection over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.; and
- (7) Claim 9 stands or falls alone with respect to the §103 rejection over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.

The arguments set forth in the following section provide reasons why each of these groups is considered separately patentable. 37 C.F.R. 1.192(c)(7).

VIII. Arguments

In the Final Office Action of November 27, 2001, the following rejections were presented by the Examiner:

- (i) 35 U.S.C. §102

- (1) The Examiner rejected claim 1 under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent 5,260,797 to Muraji et al.;

(ii) 35 U.S.C. §103

- (1) The Examiner rejected claim 2 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 5,260,797 to Muraji et al. in view of U.S. Patent 5,831,709 to Song.;
- (2) The Examiner rejected claims 1-10 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al.

(iii) Other

None

For at least the following reasons, Appellant submits that these rejections are both technically and legally unsound and should therefore be reversed.

(i)(1) 35 U.S.C. §102

The Examiner rejected claim 1 under 35 U.S.C. §102(b) at being anticipated by U.S. Patent 5,260,797 to Muraji et al. Appellant respectfully traverses this rejection.

As stated above in Section V, claim 1 recites a liquid-crystal display apparatus having a liquid-crystal display panel. A means is provided for supplying a primary color video signal, wherein a correction signal for canceling chrominance non-uniformity is superimposed on the primary color video signal. A means for supplying a common voltage is also provided.

Muraji et al. '797 disclose a projection type image display apparatus with a circuit for correcting luminance non-uniformity. As stated in the summary, "The red and blue color

component signals of an input video signal are corrected independently of one another so that their luminance is commensurate with that of the green component signal.” Column 2, lines 52-55. This is accomplished using a signal correction circuit 69, so that “a luminance distribution on said screen by each of said three projection lenses becomes a predetermined nonuniform luminance distribution according to the predetermined correction data, thereby correcting the nonuniformity of the luminance caused by the optical device.” See column 2, lines 37-45 (emphasis added). At no point in Muraji et al. ‘797 is it disclosed, taught or suggested that luminance can be substituted for chrominance, or that there is a direct correlation between correcting luminance nonuniformity with correcting chrominance nonuniformity, or that an apparatus that corrects for luminance nonuniformity can be used to correct for chrominance nonuniformity, or that the apparatus of Muraji et al. ‘797 can be used to correct for chrominance nonuniformity.

Furthermore, at no point does the Office Action allege that luminance can be substituted for chrominance, or that there is a direct correlation between correcting luminance non-uniformity with correcting chrominance non-uniformity, or that an apparatus that corrects for luminance non-uniformity can be used to correct for chrominance non-uniformity, or that the apparatus of Muraji et al. ‘797 can be used to correct for chrominance non-uniformity.

In the Advisory Action of February 4, 2002, the Examiner agrees that Muraji et al. ‘797 “does not suggest that luminance can be substituted for chrominance.” Advisory Action at page 2, lines 3-4. The Examiner surmises, without support, that “If the luminance of color signals is uniformity, so does the chrominance of the color signals (see Muraji’s abstract). The nonuniformity of chrominance can be corrected in Muraji’s display system since Muraji et al (sic) teach a method for superimposing correcting signals to color video signals to have equal amplitude in red, green and blue video signals...” See Advisory Action at page 2, lines 5-8.

Appellants’ summary of the invention is given in section V. Summary of the Invention, supra. Correcting luminance is what is occurring in Muraji et al. ‘797. The supposition by the Examiner that chrominance can be substituted for luminance is without foundation, and

violates the common meaning of the terms. The Examiner's interpretation, by equating chrominance with luminance, is incomplete and, consequently, inaccurate, misleading, and inconsistent with the claim language and the specification. The claim language in unambiguous and the elements of each claim are clear on its face.

A document can only anticipate a claim if the document discloses, explicitly or implicitly, each and every feature recited in the claim. Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Muraji et al. '797 fail to disclose, either explicitly or implicitly, at least the above-noted feature recited in independent Claim 1, Muraji et al. '797 cannot anticipate the claim. At least in view of the foregoing, claim 1 is allowable, and the rejection should not be sustained.

Still further, in order to establish prima facie anticipation, the claims must be correctly construed by the Examiner to define the scope and meaning of each contested limitation. In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ 2d 1671, 1674 (Fed. Cir. 1994).

The Examiner has not correctly construed the scope and meaning of the claims, as evidenced by the erroneous interpretation above. Accordingly, the §102 rejections are based on an erroneous and misleading claim interpretation, and consequently none of the §102 rejections should be sustained.

For all the procedural and substantive reasons, all of the §102 rejections should not be sustained.

The examiner has the burden of presenting a prima facie case of anticipation. See In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138-139 (Fed. Cir. 1986); In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (C.C.P.A. 1970). Additionally, the claim must first be correctly construed to define the scope and meaning of each contested limitation. See In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ 2d 1671, 1674 (Fed. Cir. 1994). As discussed above, the examiner has incorrectly construed the claims to define their scope and meaning. Accordingly, this

rejection is improper and the rejection should not be sustained.

(ii)(1) 35 U.S.C. §103

The Examiner rejected claim 2 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent 5,260,797 to Muraji et al. in view of U.S. Patent 5,831,709 to Song. Appellant respectfully traverses this rejection.

As stated above in Section V, Claim 2 recites a liquid-crystal display apparatus having a liquid-crystal display panel. A means is provided for supplying a primary color video signal, and a means is provided for supplying a common voltage, wherein a correction signal for canceling chrominance non-uniformity is superimposed on the common voltage.

The Office Action acknowledges that Muraji et al. '797 does not apply a correction voltage added to a common voltage. Song '709 discloses a liquid crystal display having an improved common voltage line. The Office Action alleges that compensating a "common voltage is more simple than to compensate a video voltage." Office Action at para. 4. This statement is irrelevant to the application of Muraji et al. '797 in view of Song '709. Applicants are not claiming that it would be simpler to compensate a common voltage than to compensate a video voltage. Rather, Applicants are claiming a correction signal for canceling chrominance non-uniformity that is superimposed on the common voltage. This claim element is not disclosed, taught or suggested by Muraji et al. '797 or Song 709, either alone or in combination.

As discussed above, at no point in Muraji et al '797 is it disclosed, taught or suggested that luminance can be substituted for chrominance, or that there is a direct correlation between correcting luminance nonuniformity with correcting chrominance nonuniformity, or that an apparatus that corrects for luminance nonuniformity can be used to correct for chrominance nonuniformity, or that the apparatus of Muraji et al '797 can be used to correct for chrominance nonuniformity.

Furthermore, at no point does the Office Action allege that luminance can be substituted for chrominance, or that there is a direct correlation between correcting luminance nonuniformity with correcting chrominance nonuniformity, or that an apparatus that corrects for luminance nonuniformity can be used to correct for chrominance nonuniformity, or that the apparatus of Muraji et al. '797 can be used to correct for chrominance nonuniformity.

Additionally, at no point does the Office Action allege that Song '709 makes up for these deficiencies of Muraji et al. '797.

In the Advisory Action of February 4, 2002, the Examiner agrees that Muraji et al. '797 "does not suggest that luminance can be substituted for chrominance." Advisory Action at page 2, lines 3-4. The Examiner surmises, without support, that "If the luminance of color signals is uniformity, so does the chrominance of the color signals (see Muraji's abstract). The nonuniformity of chrominance can be corrected in Muraji's display system since Muraji et al (sic) teach a method for superimposing correcting signals to color video signals to have equal amplitude in red, green and blue video signals..." See Advisory Action at page 2, lines 5-8.

Appellants' summary of the invention is given in section V. Summary of the Invention, supra. Correcting luminance is what is occurring in Muraji et al. '797. The supposition by the Examiner that chrominance can be substituted for luminance is without foundation, and violates the common meaning of the terms. The Examiner's interpretation, by equating chrominance with luminance, is incomplete and, consequently, inaccurate, misleading, and inconsistent with the claim language and the specification. The claim language in unambiguous and the elements of each claim are clear on its face.

For at least the reasons stated above, claim 2 is therefore patentable, and the rejection should not be sustained.

Claims 1-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,067,128 to Imai in view of U.S. Patent 5,260,797 to Muraji et al. Appellants respectfully traverse this rejection.

Claim 3 recites a three-panel liquid-crystal display projector having a white light source, along with a color separation system for separating a white light from the white light source into color lights. A liquid-crystal display panel, supplied with a red video signal and a common voltage, for presenting a red video image is also provided, along with a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image, and a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation. Also provided is a color synthesis system for synthesizing the color video images and a lens system. A chrominance non-uniformity correction signal is superimposed on the video signal which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

Claim 4 recites a three-panel liquid-crystal display projector having a white light source, along with a color separation system for separating a white light from the white light source into color lights. A liquid-crystal display panel, supplied with a red video signal and a common voltage, for presenting a red video image is also provided, along with a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image, and a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation. Also provided is a color synthesis system for synthesizing the color video images and a lens system. A chrominance non-uniformity correction signal is superimposed on the common voltage which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

Claim 7 recites a three-panel liquid-crystal display projector having a plurality of liquid-crystal display panels respectively receiving red, green, and blue light rays from a light source

through a color separation system to respectively produce a red video image, a green video image, and a blue video image. A color synthesis system synthesizes the red, green and blue video images for projection onto a screen to produce an enlarged image on the screen. An electrical signal processing system receiving a primary color video signal from a color video reproducing apparatus, synchronization signals, and a common voltage, and outputs respective red, green and blue video signals and a common voltage. A chrominance non-uniformity correction circuit provides a chrominance non-uniformity correction signal to the electrical signal processing system for canceling chrominance non-uniformity.

Imai '128 discloses a liquid crystal display full-color video projector. The projector projects on a screen an enlarged image of an image produced by LCD elements. The projector displays the image in colors, and the display includes three sheets of LCD elements, a color separating optical system including dichroic mirrors, and a color mixing optical system including a cross dichroic mirror and/or a cross dichroic prism.

As acknowledged in the Office Action, Imai '128 does not disclose, teach or suggest a chrominance non-uniformity correction signal, or the superimposition of a chrominance non-uniformity correction signal on the primary color video signal.

The Office Action relies on Muraji et al. '797 for allegedly disclosing a chrominance non-uniformity correction circuit. As discussed above in detail, Muraji et al. '797 disclose a projection type image display apparatus with a circuit for correcting luminance non-uniformity. At no point does the Office Action allege that luminance can be substituted for chrominance, or that there is a direct correlation between correcting luminance non-uniformity with correcting chrominance non-uniformity, or that an apparatus that corrects for luminance non-uniformity can be used to correct for chrominance non-uniformity, or that the apparatus of Muraji et al '797 can be used to correct for chrominance non-uniformity.

In the Advisory Action of February 4, 2002, the Examiner agrees that Muraji et al. '797 "does not suggest that luminance can be substituted for chrominance." Advisory Action at page

2, lines 3-4. The Examiner surmises, without support, that "If the luminance of color signals is uniformity, so does the chrominance of the color signals (see Muraji's abstract). The nonuniformity of chrominance can be corrected in Muraji's display system since Muraji et al (sic) teach a method for superimposing correcting signals to color video signals to have equal amplitude in red, green and blue video signals..." See Advisory Action at page 2, lines 5-8.

Appellants' summary of the invention is given in section V. Summary of the Invention, supra. Correcting luminance is what is occurring in Muraji et al. '797. The supposition by the Examiner that chrominance can be substituted for luminance is without foundation, and violates the common meaning of the terms. The Examiner's interpretation, by equating chrominance with luminance, is incomplete and, consequently, inaccurate, misleading, and inconsistent with the claim language and the specification. The claim language in unambiguous and the elements of each claim are clear on its face.

Accordingly, Imai '128 in view of Muraji et al. '797 does not disclose, teach or suggest a liquid crystal display apparatus having a chrominance non-uniformity correction signal that can be superimposed on either a video signal or on the common voltage. Thus, Imai '128 in view of Muraji et al. '797 does not disclose, teach or suggest the claimed invention.

For at least the reasons stated above, claim 1-4 and 7 are therefore patentable, and the rejection should not be sustained.

Claim 5 depends from patentable claim 3, and is therefore patentable for the reasons explained above. Moreover, claim 5 is further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, the §103(a) rejection cannot be sustained.

Claim 6 depends from patentable claim 4, and is therefore patentable for the reasons explained above. Moreover, claim 6 is further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, the §103(a) rejection cannot be sustained.

Claim 8 depends from patentable claim 7, and is therefore patentable for the reasons explained above. Moreover, claim 8 is further distinguished by the materials recited therein, particularly within the claimed combination, that is, that the correction signal is carried on the video signal. Accordingly, the §103(a) rejection cannot be sustained.

Claim 9 depends from patentable claim , and is therefore patentable for the reasons explained above. Moreover, claim 9 is further distinguished by the materials recited therein, particularly within the claimed combination, that is, that the correction signal is carried on the common voltage. Accordingly, the §103(a) rejection cannot be sustained.

Claim 10 depends from patentable claim 7, and is therefore patentable for the reasons explained above. Moreover, claim 10 is further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, the §103(a) rejection cannot be sustained.

(iii) Other

None

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IX. Conclusion

In view of the foregoing reasons, Appellant submits that the final rejection of claims 1-10 is improper and should not be sustained. Therefore, a reversal of the Final Rejection of November 27, 2001, as to claims 1-10, is respectfully requested.

Respectfully submitted,

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 180013 for any such fees; and applicant(s) hereby petition for any needed extension of time.

X. Appendix
Claims on Appeal

1. A liquid-crystal display apparatus comprising:
a liquid-crystal display panel;
means for supplying a primary color video signal, wherein a correction signal for canceling chrominance non-uniformity is superimposed on the primary color video signal; and
means for supplying a common voltage.

2. A liquid-crystal display apparatus comprising:
a liquid-crystal display panel;
means for supplying a primary color video signal; and
means for supplying a common voltage, wherein a correction signal for cancelling chrominance non-uniformity is superimposed on the common voltage.

3. A three-panel liquid-crystal display projector comprising:
a white light source;
a color separation system for separating a white light from the white light source into color lights;
a liquid-crystal display panel, supplied with a red video signal and a common voltage, for presenting a red video image;
a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image;
a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation;
a color synthesis system for synthesizing the color video images; and

a lens system, wherein a chrominance non-uniformity correction signal is superimposed on the video signal which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

4. A three-panel liquid-crystal display projector comprising:
 - a white light source;
 - a color separation system for separating a white light from the white light source into color lights;
 - a liquid-crystal display panel, supplied with a red video signal and a common voltage, for presenting a red video image;
 - a liquid-crystal display panel, supplied with a green video signal and a common voltage, for presenting a green video image;
 - a liquid-crystal display panel, supplied with a blue video signal and a common voltage, for presenting a blue video image, wherein one of the red, green and blue video images is projected in a left-side-right inverted orientation;
 - a color synthesis system for synthesizing the color video images; and
 - a lens system, wherein chrominance non-uniformity correction signal is superimposed on the common voltage which is supplied to the liquid-crystal display panel which projects the left-side-right inverted video image.

5. A three-panel liquid-crystal display projector according to claim 3, wherein the liquid-crystal display panel which projects the left-side-right inverted video image is the liquid-crystal display panel for presenting the green video image.

6. A three-panel liquid-crystal display projector according to claim 4, wherein the liquid-crystal display panel which projects the left-side-right inverted video image is the liquid-crystal display panel for presenting the green video image.

7. (amended) A three-panel liquid-crystal display projector, comprising:
 - a plurality of liquid-crystal display panels respectively receiving red, green, and blue light rays from a light source through a color separation system to respectively produce a red video image, a green video image, and a blue video image;
 - a color synthesis system for synthesizing the red, green and blue video images for projection onto a screen to produce an enlarged image on the screen; and
 - an electrical signal processing system for receiving a primary color video signal from a color video reproducing apparatus, synchronization signals, and a common voltage, and outputting respective red, green and blue video signals and a common voltage; and
 - a chrominance non-uniformity correction circuit providing a chrominance non-uniformity correction signal to the electrical signal processing system for canceling chrominance non-uniformity.
8. The liquid-crystal display apparatus as set forth in claim 7, wherein said chrominance non-uniformity correction signal is superimposed on the primary color video signal.
9. The liquid -crystal display apparatus as set forth in claim 7, wherein said chrominance non-uniformity correction signal is superimposed on the common voltage.

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10. The liquid-crystal display apparatus as set forth in claim 7, wherein said electrical signal processing system includes at least one of a fixed brightness adjustment, a fixed gain adjustment, and a fixed common voltage fixed through a display period.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
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In the Patent Application of

Takashi HIRAKAWA et al.

Application No. ~~09/484,228~~

Filed: October 13, 1999

For: LIQUID-CRYSTAL DISPLAY
APPARATUS AND THREE-PANEL
LIQUID CRYSTAL DISPLAY
PROJECTOR

Group Art Unit: 2673

Examiner: L. Lao

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TRANSMITTAL OF APPEAL BRIEF

BOX AF

Commissioner for Patents
Washington, D.C. 20231

Sir:

Three copies of an Appellant's Brief on Appeal for the above-referenced application are being filed herewith. The Commissioner is hereby authorized to charge \$300.00 to Deposit Account 18-0013 to cover the requisite fee under 37 C.F.R. 1.16 or 1.17 which may be required, or to credit any overpayment.

The Notice of Appeal for this application was filed on February 27, 2002.

Respectfully submitted,

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Reg. No. 24,104

Date: April 29, 2002

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